

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-17 (canceled)

1 Claim 18 (new): A computer readable medium containing
2 computer executable instructions which, when executed,
3 authenticate a string having a plurality of input characters
4 through use of a method which relies on an enciphering
5 function that enciphers, in response to a string of key
6 characters, the string of input characters to yield a
7 corresponding string having a plurality of output enciphered
8 characters, the method comprising the steps of:

9 modifying said enciphering function, by application of
10 a modification function and in response to a string of
11 modification characters; and

12 enciphering, by application of the enciphering function
13 and in response to said string of key characters, said
14 string of input characters so as to yield the corresponding
15 string of output enciphered characters;

16 wherein:

17 said modification function is applied initially to
18 said enciphering function, that is prior to the application
19 of the enciphering function to generate all of the
20 enciphered characters in the corresponding string of output
21 enciphered characters; and

22 said modification function, once so initially
23 applied, modifies the enciphering function in response to

24 the modification characters, the modification characters
25 being derived from said string of input characters.

1 Claim 19 (new): The method according to claim 18 wherein the
2 modification characters are also derived from said string of
3 key characters.

1 Claim 20 (new): The method according to claim 18 wherein the
2 modification function replaces a character of the string of
3 modification characters by a replacement character obtained
4 by addition of two or more characters of the string of
5 modification characters modulo the number of possible
6 different characters in each of the modification characters.

1 Claim 21 (new): The method according to claim 18 wherein the
2 modification function modifies sequence numbers of two or
3 more of the characters of the string of modification
4 characters.

1 Claim 22 (new): The method according to claim 18 wherein the
2 modification function comprises, as an initial function, a
3 function which was previously used for determining an
4 earlier string of the output enciphered characters than the
5 corresponding string of the output enciphered characters.

1 Claim 23 (new): The method according to claim 18 wherein the
2 enciphering function comprises a substitution function.

1 Claim 24 (new): The method according to claim 18 wherein the
2 enciphering function comprises a non-invertible function.

1 Claim 25 (new): The method according to claim 18 wherein the
2 enciphering function comprises a substitution box having
3 replacement characters for characters of the string of input
4 characters, and the modification function exchanges, based
5 on the string of modification characters, two or more
6 characters of the substitution box.

1 Claim 26 (new): The method according to claim 19 wherein the
2 modification function replaces a character of the string of
3 modification characters by a replacement character obtained
4 by addition of two or more characters of the string of
5 modification characters modulo the number of possible
6 different characters in each of the modification characters.